

Neo Series Bass Enclosures

Owner's Manual



Neo Series Bass Enclosures



Always Listening

I have never seen the point in doing things the way others have done them. I also have not been very interested in following the latest fad. I'm a Stanford educated engineer who worked my way through school as a musician. Like all musicians, I have lugged amplifiers up stairways and into car trunks, always wondering why these things had to be so heavy, bulky, and hard to handle.

As I am the principal innovator at GK, our products reflect my attitudes and life experiences. I don't model my designs after other manufacturers' products. Instead, I believe new and old problems are best solved with new solutions. Having taken our own path, GK products enjoy a unique, unmatched sound, allowing you every opportunity to make an original statement.

Having supported my products for over thirty years, I have learned from the story they tell. Gallien-Krueger is a reflection of that story, and has a commitment to support that legacy. Just as the products I created over thirty five years ago are still telling their story, the products we create today will be talking to us tomorrow.

We'll be listening,

Robert Gallien

Congratulations

Your purchase of a new Gallien-Krueger product is surely the result of much careful consideration on your part. For our part, we at Gallien-Krueger are pleased that you chose us, and are determined that you will be a satisfied customer. In choosing GK, you now own gear with unique features which will allow you to create your own distinct sound.

To get the most out of your new amplifier please take a few minutes to read through this manual.

Your amplifier should have come with the following items, please check the contents of the box to ensure that you have everything.

Swivel Castors (Neo 410 only)	1
Speakon Cable	1
Owner's manual	1
Warranty card	1

If your unit did not come with all the items listed, or if you encounter problems while setting up your new equipment, please contact your local dealer or GK as soon as possible.

Gallien-Krueger, Inc.
2234 Industrial Drive
Stockton, CA 95206
phone: (209) 234-7300
fax: (209) 234-8420
Internet: www.gallien-krueger.com
Email: info@gallien.com

Important Safety Instructions:



This symbol warns the user of dangerous voltage levels localized within the enclosure.



This symbol advises the user to read all accompanying literature for safe operation of the unit.

- Read, retain and follow all instructions. Heed all warnings.
- Do not use this product near water or liquids. Do not place liquid filled containers on this unit.
- Clean only with a dry cloth.
- Place only on a firm, level surface. A surface that vibrates or moves is unsafe for the unit.
- Do not place this product near heat sources such as radiators, heat registers, stoves, or other units that produce heat.
- Only use attachments/accessories specified by the manufacturer.
- Use only with the cart, stand, tripod, bracket or table specified by the manufacturer or sold with the unit.
- There are no user serviceable parts inside. Refer all servicing to a qualified service personnel.

Warning!
This product is capable of producing high sound pressure levels. Continued exposure to high SPL's can cause damage to your hearing. Always set the volume at a safe listening level or use hearing protection if the unit is operated at higher levels.

Neo Series Bass Enclosures

Setup & Maintenance

Packaging: The carton and packing materials used in shipping your new product were specifically designed to cushion it from the shocks and vibration that occur during transport. We suggest that you save the carton and packing materials for use in shipping.

Transporting: During transport, do not stack another cabinet or any additional equipment on top of the cabinet. The castors are not designed to handle the weight of more than one cabinet. In situations where the castors do not roll easily, remove castors and use a handtruck instead. If traveling with the unit frequently, we recommend a road case or cover to protect it from scratches and road wear.

Stacking: To insure the safe setup of the Neo series cabinets please follow these basic procedures. Remove castors from both cabinets before stacking. Never stack more than two cabinets when in use. Make sure that interlocking corners are securely seated.

Caution

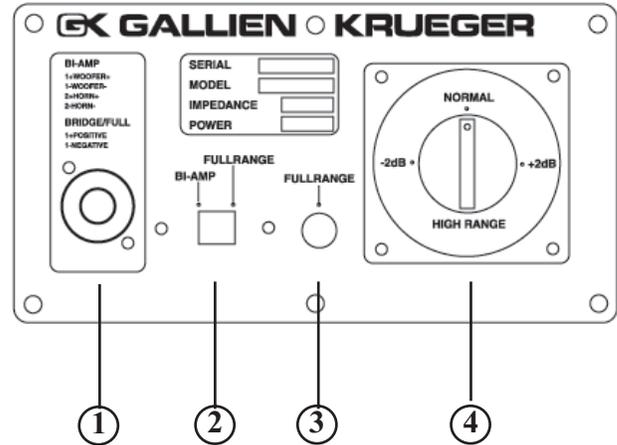
DO NOT connect more than one amplifier to your speaker enclosure. This will cause damage to your equipment.

DO NOT use shielded instrument cables to connect to your speaker enclosure. Use only unshielded speaker cables of 18 gauge or heavier for speaker connections.

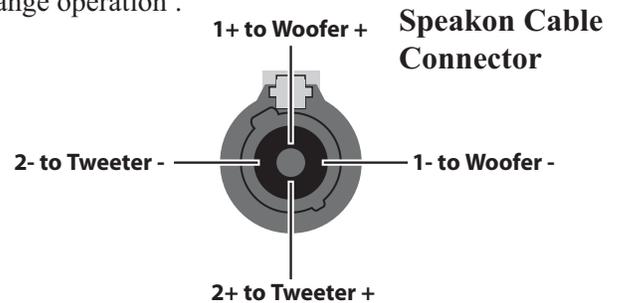
DO NOT connect speakers with a total power handling capacity below the power output rating of your amplifier. If your amplifier is rated at 400 watts at 4 ohms, then the combined power handling of your speaker enclosures should be 400 watts RMS or higher at 4 ohms. See IMPEDANCE GUIDELINES for additional info.

DO NOT connect speakers with a combined total impedance that is below the minimum rating of your amplifier. Doing so may cause damage to your gear. Using speakers with a total impedance above the minimum power rating of your amplifier is safe.

Features



1) Speakon® Connector: A high current speaker connector. Use the provided 4-conductor Speakon® cable for Horn Bi-Amp operation. Pins 1+ and 1- connect the main amplifier to the woofers. Pins 2+ and 2-, connect the horn amplifier to the tweeter. You may use a standard 2-conductor Speakon® cable for full range operation .



2) Mode Switch: Switches between Horn Bi-Amp mode and Full Range operation. When using this cabinet with a Horn Bi-Amp compatible head such as the 1001RB-II, this switch should be set to BI-AMP. For operation with all other amplifiers this switch should be set to FULLRANGE.

3) Full Range ¼" Input Jack: Using a standard ¼" unshielded speaker cable, this input jack provides full range operation with any bass amplifier head. Horn Bi-Amp mode will not work with this jack. Neo cabinets ship with a removable plug in the ¼" jack. DO NOT use tools to remove this plug. It can easily be removed with your fingers.

4) High Range Attenuator: Adjusts the volume level of the horn when the cabinet is in Full Range mode. When in Horn Bi-Amp mode, this control is bypassed and the horn level is adjusted by using the Tweeter control on the front panel of the amplifier.

Tech Talk

Impedance Guidelines: The impedance of your speaker enclosure is referred to as the Ohm rating. Amplifiers connect cabinets in parallel so when combining speaker enclosures, the impedance or Ohm rating will go down.

$$8 \text{ Ohms} + 8 \text{ Ohms} = 4 \text{ Ohms}$$

$$4 \text{ Ohms} + 4 \text{ Ohms} = 2 \text{ Ohms}$$

$$4 \text{ Ohms} + 8 \text{ Ohms} = 2.67 \text{ Ohms}$$

Note: If you are combining speaker enclosures of different impedances, the enclosure with the lower impedance will receive a greater amount of the signal causing it to be louder than the other cabinet.

Horn Bi-Amp System:

The Neo Series cabinets include a passive crossover for standard operation or may be used with GK's unique Horn Bi-Amp System.

Horn Bi-Amp compatible amplifiers use an electronic crossover to split the signal between the main amplifier and a separate horn (tweeter) amplifier. The horn amp sends signals above 5kHz to the horn while the main amplifier sends a full range signal to the woofers. Optionally you can engage the Woofer High-Cut to cut signals above 5kHz from the main amplifier. Both signals are delivered to the cabinet via a single Speakon® cable.

Note: The 50W horn amplifier has a fixed frequency output of 5kHz and up (high frequencies only). It will not provide a useable signal to drive a separate speaker cabinet.

Note: To avoid risk of damage to the equipment, do not use a 4-conductor Speakon® cable with non GK cabinets. Instead use a 2-conductor Speakon® or 1/4" speaker cable.

CAUTION: UNDER NO CIRCUMSTANCES SHOULD THE WOOFER/MAIN AMP AND THE 50 WATT HORN AMP BE CONNECTED TOGETHER!!!

Specifications

	<u>Neo 410</u>	<u>Neo 210</u>
Impedance:	8 ohms	8 ohms
Power Handling (RMS):	800W	400W
Power Handling (Peak):	1600W	800W
Sensitivity:	103 dB	98 dB
Maximum SPL:	132 dB	124 dB
Frequency Resp. (-3dB):	30 Hz to 19 kHz	47 Hz to 19 kHz
Woofers (Neodymium):	200W 32 ohm	200W 16 ohm
Horn (P-Audio):	25W 8 ohm	25W 8 ohm
Porting:	Front-Ported	Front-Ported
Dimensions (WxHxD):	23.5 x 26.5 x 18.5	23.5 x 19.5 x 15.5
Weight:	68 lbs.	40 lbs.

	<u>Neo212-II</u>	<u>Neo 112-II</u>
Impedance:	8 ohms	8 ohms
Power Handling (RMS):	600W	300W
Power Handling (Peak):	1200W	600W
Sensitivity:	101 dB	98 dB
Maximum SPL:	129 dB	122 dB
Frequency Resp. (-3dB):	53 Hz to 19 kHz	51 Hz to 19 kHz
Woofers (Neodymium):	300W 16 ohm	300W 8 ohm
Horn (P-Audio):	25W 8 ohm	25W 8 ohm
Porting:	Front-Ported	Front-Ported
Dimensions (WxHxD):	23.5x24.5x16.5	23.5 x 15.5 x 16.5
Weight:	50.5 lbs.	30 lbs.

	<u>Neo 115-III</u>	<u>Neo 412</u>
Impedance:	8 ohms	4 ohms
Power Handling (RMS):	400W	1200W
Power Handling (Peak):	800W	2400W
Sensitivity:	99 dB	102 dB
Maximum SPL:	125 dB	133 dB
Frequency Resp. (-3dB):	45 Hz to 19 kHz	54 Hz to 19 kHz
Woofers (Neodymium):	500W 8 ohm	300W 16 Ohm
Horn (P-Audio):	25W 8 ohm	25W 8 ohm
Porting:	Front-Ported	Front-Ported
Dimensions (WxHxD):	23.5 x 19.5 x 18.5	26 x 41 x 17
Weight:	40 lbs.	94 lbs.

	<u>Neo 810</u>
Impedance:	4 ohms
Power Handling (RMS):	1600W
Power Handling (Peak):	3200W
Sensitivity:	99 dB
Maximum SPL:	128 dB
Frequency Resp. (-3dB):	36 Hz to 19 kHz
Woofers (Neodymium):	200W 32 ohm
Horn (P-Audio):	25W 8 ohm
Porting:	Sealed (Non Ported)
Dimensions (WxHxD):	26.5 x 49x 17.5
Weight:	111 lbs.

